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MP083 'Change Coordination' Business requirements – version 0.2

About this document

This document contains the business requirements for this Modification Proposal. It provides detailed information on the business requirements for the Proposed Solution agreed by the Proposer [and the Alternative Solution[s] raised by other Parties], with input from the Data Communications Company (DCC) and Sub-Committees. It also provides the considerations and assumptions for each business requirement with respect to this Modification Proposal.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	**Requirement**
1	DCC Users will provide the DCC with details of planned changes to their systems
2	DCC will create a risk heatmap of DCC User changes
3	DCC will provide additional support on days determined as ‘high risk’
4	DCC will store data securely

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement. These requirements outline what is needed to build a solution to the issue defined in the problem statement.

2.1 Requirement 1: DCC Users will provide the DCC with details of planned changes to their systems

The data sharing requirement is based on direct customer feedback through the Change Coordination prototype. Essentially, DCC is only asking for the planned event, event type, date and the magnitude of change. During the prototype trial, DCC is refining the data requirements with several DCC Users to define the minimum data required to enrich Root Cause Analysis, provide effective DCC support on high risk days, and to enable effective Change Coordination for the industry as a whole.

The required data which is also currently utilised within the Change Coordination prototype is as follows:

- **Planned Device Volumes**
    - Complete Customer field (Which customer has completed the Excel document)
    - Date of completion (Date that document has been completed)
        - Month
        - Total ESME Volume
        - Total GSME Volume
- **HAN Device Changes**
        - Planned Change Type
        - Planned Start Date & Time
        - Planned End Date & Time
        - Device Type
        - Manufacturer
        - Impacted Volume
        - Impacted PAYG Volume
        - Submission Type
- **System Changes**
        - Planned Change Type
        - Planned Start Date & Time
        - Planned End Date & Time
        - Complexity
        - Change Description
        - Submission Type
- **New Products**
        - Planned Change Type

- Planned Start Date & Time
- Planned End Date & Time
- Rollout Stage
- Change Description
- Submission Type

Note DCC have included tariff change as a data item, however, DCC are aware that most DCC Users will not want to share this confidential information. At the end of the prototype, DCC will likely remove this.

In terms of data volume, this differs per DCC User based on the level of change they are implementing at any given time. From the prototype trial, DCC has seen so far 10-50 data points weekly per DCC User. However, the data volume could be relatively static week on week if the planned change remains the same. Regarding data frequency, as part of the prototype trial DCC are evaluating whether the weekly frequency is optimal.

This data (except the planned start date and time and end date and time) is only for the DCC's use and will not be available to other DCC Users. Where possible, the DCC Users must provide the DCC this information 20 working days in advanced of the changes taking place. DCC Users must also update the DCC if there is a change to the information provided.

Based on customer engagement to enable the prototype DCC understands that some change information will be considered commercially sensitive by the industry. The Refinement Process for the modification will define whether certain information can be shared or not or whether it would need to be sufficiently abstracted or aggregated with overall change so that the sensitive change is not identifiable.

2.2 Requirement 2: DCC will create a risk heatmap of DCC User changes

Using the information provided from DCC Users as per Requirement 1, the DCC will create a calendar, ranking upcoming days as a risk level of both internal and external changes. The key outputs of Change Coordination will be three risk heatmaps:

- Overall heatmap, showing the combined risk associated with both planned internal (covered by the Forward Schedule of Change) and external changes (Change Coordination)
- DCC User heatmap, showing the risk associated with planned **external** changes
- DCC Internal heatmap, showing the risk associated with planned DCC **internal** changes

This risk level will be determined by those factors/inputs as defined within Section 2.2.1

The heatmap risk statuses will be attributed both on an aggregated day level and on an individual change level as follows:

2.2.1 Aggregated calendar day level for Internal and External Changes

The three risk statuses per calendar day are influenced by the highest risk from all the changes happening on that day:

2.2.1.1 Table 1: How many Green/Amber/Red changes result in a Green/Amber/Red Day

RAG Status	Associated Green Changes	Associated Amber Changes	Associated Red Changes
Light Green	No changes	No changes	No changes
Dark Green	1+ changes	No changes	No changes
Amber	0+ changes	1+ changes	No changes
Red	0+ changes	0+ changes	1+ change

2.2.1.2 Table 2: Mock-up of how multiple changes result in a Green/Amber/Red day

Date	Change	Change	Change	Change	Change	Change	Change	Combined Risk Assessment
11/02/2019	Medium	Medium	Low					Medium
12/02/2019	Low	Low	Medium	Medium	Low			Medium
13/02/2019	Hight	Hight						High
14/02/2019	Hight	Low	Low					High
15/02/2019	Low	Medium	Low					Medium
16/02/2019	Low	Low	Medium					Medium
17/02/2019	High	High	High	Low				High

It should be noted that the overall heatmap takes in both internal and external changes into its calibration.

2.2.2 Factors influencing the heatmap risk status

DCC will attribute the heatmap risk statuses on both aggregated calendar day level and on an individual change level.

2.2.3 Individual change level

The three risk statuses (Red, Amber, Green) will be attributed per individual change based on the type of change and its associated volume e.g. red for a back-end system change with >4hours of planned downtime.

The risk methodology identifies:

- The type of change as impact of risk
- The associated volume/downtime as probability of risk

2.2.4 Risk status for DCC User Changes

To attribute a risk status to a particular change DCC will consider both the impact and the probability of the risk. Below is the current methodology employed within the prototype for attributing a risk status to a DCC User Change

Impact of risk: We assume each change has a defined impact (Major/Moderate/Minor)

Major: Firmware Upgrades, Price Update, Back-end system changes, New HAN Device Introduction

Moderate: VAT change, New HAN Device manufacturer, New HAN device functionality

Minor: Configuration changes, maintenance outages, Firewall change, NEW HAN device model.

Probability of Risk: DCC assess how likely is the risk to happen (unlikely, likely, highly likely)

RISK = Impact x Probability

Impact of risk			
Major	3	6	9
Moderate	2	4	6
Minor	1	2	3
	Unlikely	Likely	Highly Likely

Probability of risk

2.2.5 Risk Status for DCC Internal Changes

DCC have used the industry- agreed change impact assessment methodology for the Forward Schedule of Change (FSC) and applied risk score ranges to come up with the Green/Amber/red risk status required for the co-ordination heatmap. The risk score ranges were based on an analysis of the impact and probability of each risk.

The current risk methodology deployed within the prototype has been developed and validated by:

- DCC User Change risk methodology was developed with input from customers and Energy UK
- The risk methodology for DCC Internal Changes is built on the existing industry approved Forward Schedule of Change methodology and co-ordination risk ranges have been validated by the DCC Change Team
- The aggregated calendar risk methodology is based on the principle that the highest risk for the day is the key risk factor

DCC will refine the risk methodology based on learnings from the prototype trial and will apply this continuous improvement approach during the lifecycle of Change Coordination.

This risk map will be available to DCC Users through the DCC Systems through the Self-Service Interface (SSI). This allows the DCC Users to consider risk levels of a given day when planning future changes.

2.3 Requirement 3: DCC will provide additional support on days determined as 'high risk'

On days determined as high risk, the DCC will make provisions for additional support on those days. This will allow for mitigation and management of issues that may arise from DCC User changes. The additional DCC support will entail proactive Technical Operations Centre (TOC) & Major Incident Management monitoring. Which means that DCC know about the changes that will be taking place

and we can proactively monitor the impact. This will speed up the resolution of incidents or prevent them in the first place.

2.4 Requirement 4: DCC will store data securely

[Place-holder requirement to determine where data is stored (i.e. separate from DCC Systems) how long DCC store data, who has access to the data etc]

3. Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	**Full term**
DCC	Data Communications Company
FSC	Forward Schedule of Change
TOC	Technical Operations Centre